

CIRCULAR No. 95.

DETECTING DAIRY LOSSES.

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A conservative estimate of the butterfat production of the average dairy cow in California would place the amount at about 150 pounds, but calculations made from statistics for 1912, which are available, show that the production is still lower than this, being nearer 125 pounds. Under prevailing conditions in California no dairyman can afford to feed and care for those cows whose records approach such a mark as either of these and even where cheap pastures are available there is a limit below which a cow does not pay for her keep. For the year ending March 1, 1913, the average price paid for butterfat in California, if based upon a two cent margin, San Francisco quotations, was thirty-three (33) cents, and during the same time the price of alfalfa hay hovered around the \$12 mark. If an ordinary cow is fed alfalfa alone, which is common though probably not the best practice, she will consume annually an amount near to five tons, and there will be other additional expense in the nature of labor to milk and care for her. Using the two sets of figures mentioned, those relating to expense and those relating to profit, a pencil and paper will quickly show that there must be a great number of cows in this State which are a dead expense to their owners. How many dairymen know whether or not they have cows which are in this class?

Profitable dairying is an established possibility. Regardless of the low average production cited, this condition is not a problem incapable of being solved, as facts and figures even here in California have already shown. The solution lies through the use of milk scales and the Babcock test. Periodic and systematic herd testing is the means of turning loss into profit, and is a matter deserving of the attention of dairymen, for it forms the true basis from which the cow's actual performance may be determined. High cost of production demands economy, and dairymen are compelled to eliminate from their herds the poor producers.

Many dairymen own Babcock testers, but too few use them. The value of the test is lost unless regularly made. Where dairymen find it impossible to make periodic and regular tests, one of the most satisfactory means of conducting the same is through the form of a cow testing association. The nature of these associations is co-operative, each dairyman paying in proportion to the number of cows owned. In the Ferndale Association the cost per year is eighty cents (80¢)

for each cow in herds of fifty or more, and one dollar (\$1.00) in smaller herds. The present year this association has 2,600 cows under test, and two testers are maintained. In the Stanislaus Association the cost is one dollar and fifty cents (\$1.50) per cow, and in the Tulare Association one dollar and twenty-five cents (\$1.25) per cow. These amounts vary according to the number of cows entered, and in no case are they prohibitive when the value received is considered. The results in one herd, which has been tested regularly for three years, show that the average butter fat production was 256 pounds for the first year, 290 pounds for the second year, and 335 pounds for the third year. While the first year's average is higher than the annual production of the common dairy cow in the State, the great increase during the two succeeding years simply serves to show the possibilities through periodic testing for butter fat production.

In testing dairy herds for annual butter fat yield, system and regularity are essential points. The plan of testing an evening and morning milking once each month has been found very satisfactory, as this gives a close estimate of a cow's ability if carried on regularly throughout an entire year. When testing periods occur at regular intervals, the figures thus obtained can be used to estimate the yield for the month, or for the fifteen days before and after test day. In the association the tester visits each dairy once each month. The milk of each individual cow is weighed night and morning, a composite sample taken, and a test for butter fat made. Owners of cows are provided with record sheets for each cow, and on these the tester enters the monthly calculations, making it an easy matter for the dairyman to pick out the unprofitable producers. Procedure, such as this, eliminates guesswork, and puts the whole matter on a logical basis. Every dairyman could test his own cows, but too often he fails to do this, and it is for such a reason that a co-operative movement proves its value. Where it is impossible to maintain a community enterprise, individual owners must take the work upon themselves, for through the use of milk scales and the Babcock test lies the true means of determining a dairy cow's worth. In these days, when the cost of feed is universally high, cows must deliver the goods.